complicated by gastro-intestinal autointoxication, and he emphasizes the difficulty of diagnosticating between diffuse degeneration of the spinal cord and compression of the cord from a metastatic vertebral tumor, when a carcinoma exists anywhere in the body.

SPILLER.

RECHERCHES CYTOMÉTRIQUES ET CARYOMÉTRIQUES DES CELLULES RADICULAIRES MOTRICES APRES LA SECTION DE LEUR CYLINDRAXE (Changes in the Cell-body and Nucleus after Division of the Axone). G. Marinesco (Journal de Neurologie, 1901, March 5, No. 5, p. 81).

Marinesco reiterates a statement that he has made previously, viz., that the cell-body in the hypoglossal nucleus enlarges after division of the axone, and he believes that he has established this fact by careful measurements, although opposite views regarding the hypertrophy of the cell-body are held by Charles Ladame. The enlargement implicates the nucleus and nucleolus, and is apparent three days after division of the axone. Considerable doubt exists as to the duration of this hypertrophy, and the duration depends upon several factors, among which the restoration of the axone is important. Marinesco believes that the diminution in the size of the cell-body does not occur at once when restoration of the cell-body begins, and that the hypertrophy diminishes gradually after forty-five or fifty days, and may still be seen after ninety days. During the period of disintegration of the cell-body the nucleolus appears paler than normal, but is more deeply stained during the period of restoration. The cellular changes are more rapid after resection than after mere division of a nerve, and if sufficient of the nerve has been removed the cell-body atrophies instead of undergoing restoration. The results vary according to the length of the neurone and the point at which the resection is made. SPILLER.

DES FOYERS LACUNAIRES DE DESINTEGRATION ET DE DIFFERENTES AUTRES ETATS CAVITAIRES DU CERVEAU (Lacunar Foci of Disintegration and Other Different States of Cavity Formation in the Brain). P. Marie (Revue de Médicine, April 10, 1901, No. 4, p. 281).

In this paper Marie calls attention to the fact that the hemiplegias of old people are less often due to hemorrhage or to softening than to the process of cavity formation. These lacunæ show themselves as small cavities with a more or less irregular contour variable in volume, and of a size from a millet seed to a pea, rarely larger. In number they vary from two to eight or ten. Most commonly they are found in the lenticular nucleus. In fifty autopsies they were found in this region forty-five times. The age of such cavities can be determined from the state of granular infiltration in the recent ones, and from the zone of sclerotic tissue surrounding them in the more advanced ones. These lesions are due, in general, to arterial sclerosis plus a senile condition of the brain tissue. Under the effect of this arterial condition, the vessels supplying the brain become altered, the nutrition of the organ suffers, and different regions become atrophied, causing a dilatation of the ventricle and of the perivascular spaces. The vascular lesion progresses, a rupture or an obliteration takes place, from which one or several of these lacunæ results. It was found that softening, and especially cerebral hemorrhage, were observed exclusively in brains having such lacunæ. In fifty brains with lacunæ, examined in this regard, a hemorrhage was found to have taken place sixteen times, and softening seven times. The most frequent symptom observed is hemiplegia. True apoplexy is rare. The hemiplegia is as a rule incomplete, very little trace of paralysis remaining behind. The tongue and face are seldom permanently affected. Another condition of cavity formation in the brain is the sieve-like state of the brain (état criblé). This condition was described first by Durand Fardel. It is due to a general dilatation of the vessels as the result of repeated hyperemic attacks. This condition is frequently found in the brains of old people. It can best be shown in horizontal-transverse sections at the level of the white substance and anterior to the Island of Riel and the temporal pole. It results from an ordinary perivascular dilatation without any definite alteration of the tissues. There is reason to believe that the état criblé is due rather to a retraction *en masse* of the cerebral parenchyma than to a local lesion. Isolated perivascular dilatation around one of the lenticulo-striæ vessels at its entrance in the lenticular nucleus is sometimes found. This lesion in its essence is analogous to the preceding one, but is different in aspect and localization. It presents itself usually as a cavity varying in volume from a lentil to a bean. Its walls are perfectly smooth and no trace of histological alteration is to be found in the cerebral parenchyma. There is in all likelihood a dilatation merely of the perivascular spaces. Cerebral porosis: Numerous examples of this form of cavity formation have been reported. It consists of the presence of rounded cavities, more or less numerous, fifteen to twenty being found in one frontal section of a hemisphere. The volume of these cavities varies from that of a hempseed to that of a small hazelnut. Their location is variable, in the cortex, centrum ovale, central ganglia, peduncles, and cerebellum. Histologically there is no modification to be found, no sclerotic, nor inflammatory process. Their origin, according to Arnold and Pick, is due to a dilatation of the perivascular lymph spaces, due to a disturbance of the intra-cerebral lymphatic circulation. The author believes that this explanation is not tenable, but that they are due to post-mortem changes.

SCHWAB.